

Team ID: NFS26

New Futures School

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Area Of Science: Biology, Environmental Science

Vehicle Carbon Dioxide Reduction

Our project is based on the output of carbon dioxide that cars release. Pollution is causing global warming, which in turn causes natural disasters to be more extreme, endangers numerous living organisms, and often leaves people with no home or basic necessities like water or food. Our plan is to use what earth has already given us, plants!

So we started thinking and tried to come up with a plant that would absorb a lot and also be good for the community, We contacted a local farmer, Jedrek Lamb, and he suggested that we use ground cover like what they use for their crops. Farmers often use ground cover to keep nitrogen for their crops. They also absorb a large amount of CO₂, this CO₂ they absorb could be all that nasty pollution that comes from cars. If we replace the sidewalks with a ground cover instead of concrete then we could have the ground cover absorbing the pollution.

We plan to show the rate at which plants absorb the CO₂ out of the atmosphere and turn it into oxygen. We also plan to see how much it would absorb.

So far we found out that plants adapt very quickly to their surroundings so the pollution shouldn't make the plants wilt. Although there is no information about clover or rye (ground cover) and how much CO₂ they absorb, we found out an acre of grass absorb 920 lbs per year. Cars admit more than 6 tons of CO₂ per year. Even though the cover will not absorb as much as we put out, it will slow down the carbon output and clean up some of our carbon footprints.

We plan to use Netlogo in order to model the amount of carbon emissions absorbed by ground cover that is grown over a full city block.

Sources:

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Jedrek Lamb, Albuquerque North East Farmers' and Artisans' Market, New Mexico Farmers Markets

Report by Serenity Pizarro